

## CHANGE ISSUE – RTCA/DO-242

# MASPS for ADS-B

## Rev. A

Tracking Information (committee secretary only)	
Change Issue Number	50
Submission Date	11/11/01
Status (open/closed/deferred)	DEFERRED
Last Action Date	2/22/02

Short Title for Change Issue:	Clarification is needed for coast intervals and coast update rates of reports versus transmitted State Vector data.
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MASPS Document Reference:		Originator Information:	
Entire document (y/n)		Name	Stuart Searight, FAA
Section number(s)		Phone	(609) 485-5036
Paragraph number(s)		E-mail	Stuart.Searight@tc.faa.gov
Table/Figure number(s)	Table 3-4	Other	

Proposed Rationale for Consideration (originator should check all that apply):	
<input type="checkbox"/>	Item needed to support of near-term MASPS/MOPS development
X	DO-260/ED-102 1090 MHz Link MOPS Rev A
<input type="checkbox"/>	ASA MASPS
<input type="checkbox"/>	TIS-B MASPS
<input type="checkbox"/>	UAT MOPS
<input type="checkbox"/>	Item needed to support applications that have well defined concept of operation
<input type="checkbox"/>	Has complete application description
<input type="checkbox"/>	Has initial validation via operational test/evaluation
<input type="checkbox"/>	Has supporting analysis, if candidate stressing application
<input type="checkbox"/>	Item needed for harmonization with international requirements
<input type="checkbox"/>	Item identified during recent ADS-B development activities and operational evaluations
X	MASPS clarifications and correction item
<input type="checkbox"/>	Validation/modification of questioned MASPS requirement item
<input type="checkbox"/>	Military use provision item
<input type="checkbox"/>	New requirement item (must be associated with traffic surveillance to support ASAS)

Nature of Issue:	<input type="checkbox"/>	Editorial	X	Clarity	<input type="checkbox"/>	Performance	<input type="checkbox"/>	Functional
<u>Issue Description:</u>  <p>The ADS-B requirements for Coast Intervals and Coast Update rates as they apply to ADS-B <u>reports</u> are found in Table 3-4, but there are no requirements on the timeliness of transmitting position data which is needed to acquire targets. Of particular concern are short range applications on the airport surface such as blind taxiing. In such operations, shadowing is an important consideration. If an aircraft or surface vehicle is not transmitting its State Vector information often enough – even if stationary – a n aircraft taxiing by use of an ADS-B/CDTI display might not acquire a stationary vehicle that was blocked by a building, aircraft, or other obstacle promptly enough to avoid a collision.</p>								

<u>Originator's proposed resolution if any:</u>  <p>Possible solutions:</p> <ol style="list-style-type: none"> <li>1. a new column could be included in Tale 3-4 for operations on the airport surface while at very short distances (less than ¼ mile??);</li> <li>2. a new row could be included in table 3-4 for transmit times (though this would be against the attempt to keep the MASPS as link-independent as possible);</li> <li>3. place these requirements elsewhere in the document.</li> </ol>
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Working Group 6 Deliberations:

October 26, 2001: This Issue Paper was created in response to a discussion on Issue Paper 13 which requested that the ADS-B MASPS specifically disallow variable update rates for transmissions on aircraft on the ground. (IP13 was submitted due to concerns that the 1090MHz MOPS use of a variable update rate will not be sufficient for runway incursion applications.) It was agreed by WG6 to defer IP13 to allow WG3 and the IP13 authors to do more analysis on the requirement of runway incursion applications and to address the clarifications of Coast Intervals and Update Rates on report generation and SV data broadcasts called for in this Issue Paper.

February 22, 2002: At the February 2002 WG6 meeting, it was agreed that this Issue Paper will be deferred until a future revision of the MASPS. Analysis will need to be provided from runaway incursion application designers to validate what requirements must be in place within ADS-B.